## MATE KAPOVIĆ **The shortening of the Slavic long circumflex** – *one mora law* in Croatian

## INTRODUCTION<sup>1</sup>

The general reflexes of the Proto-Slavic old long circumflex (\* ^) in Croatian have been known for a long time. In monosyllabic and disyllabic words (not counting the final *yers*), it yields Croatian long falling accent (), cf. PS \*gôrdь > Croat. *grâd* 'town' and PS \*zôlto > Croat. *zlâto* 'gold'. In contrast to this, the old \* ^ is shortened in trisyllabic and polysyllabic words, cf. PS \*sŷnove > Croat. *sinovi* (: *sîn* < \*sŷnъ) 'sons', PS \*pôrsete > Croat. *prâseta* (: *prâse* < \*pôrse) 'pig'. This is uncontroversial and widely accepted<sup>2</sup>. However, this simplified approach does not really tell us what happens with the 'inbetween' cases, i.e. what happens with the words that have three syllables including the *yers*. In these cases, one finds examples which are not really clear at first glance, for instance the preservation of length in cases like *glâdno* < \*gôldьno 'hungry' but shortening in cases like *muško* < \*môžьsko 'male' (: *mûž* < \*môžь 'man'), or the preservation of length in cases like *bûbanj* <\*bôbьпъ 'drum' but shortening in cases like *vječan* < \*vêčьnъ 'eternal' (: *vijêk* < \*vêkъ 'age'). It is obvious that some kind of explanation has to be given here since the quoted simple rule about disyllables and trisyllables does not help us here.

I have tackled this problem already in one of my articles (Kapović 2005a: 77–81) and I believe that the explanation given there is basically correct (cf. also Kapović 2008: 13). However, some very important examples have not been discussed in that article and the case of the words like \*mộžьsko has not been properly explained there. Thus, a more detailed approach to the subject is needed as well as careful examination of additional data. That is the purpose of this article.

I have already tried to explain the shortening of pretonic length in Slavic with the help of morae. The claim is that pretonic lengths in Slavic are shortened in front of two or more morae (cf. Kapović 2005a: 101 and Holzer 2007: 74–75). There, the concept of morae is used to explain in which positions pretonic lengths are shortened and in which ones they are preserved. Mora is defined as follows: Slavic originally long vowels (\*a, \*ě, \*i, \*u, \*y, \*ę, \*q and diphthongs \*or, \*er, \*ol, \*el, \*ъr, \*ъr, \*ъl, \*ьl) count like two morae<sup>3</sup>, Slavic originally short vowels (\*e, \*o) count as one mora and the *yers*, the 'reduced' vowels (\*ъ, \*ь) count as half a mora. In this article, I shall try to prove that the shortening of the old long circumflex in Croatian can be explained via the morae concept as well.

<sup>&</sup>lt;sup>1</sup> I would like to thank Marko Kapović for proofreading the text.

<sup>&</sup>lt;sup>2</sup> See for instance Дыбо 2000: 18 for this kind of simple explanation.

<sup>&</sup>lt;sup>3</sup> Except in the final open syllable where they are shortened (like in  $r\bar{q}k\ddot{a} > r\bar{q}k\dot{a}$ ) and thus count as a short vowel. In traditional accentological approach, all lengths in final open syllables are shortened. However, if one accepts that some lengths are preserved in final open syllables (like Croat. dial. instr. sg.  $-\tilde{i} < *-\tilde{y}$  in *o*-stems), then, of course, those are counted as two morae as well and pretonic length is shortened in front of them.

## THE CONDITIONS OF THE SHORTENING OF THE LONG CIRCUMFLEX

Here I shall adduce the examples for the long circumflex shortening rule, which point to a variant treatment of the long circumflex in Croatian due to syllabic structure, i.e. to the number of morae after the long circumflex. The examples provided are those with a regular reflex. Words with analogical changes will be dealt with in the following text.

- 1) PS \* $m\hat{y}$  > Northern Čakavian/Kajkavian  $m\hat{i}$  we
- 2) PS \*dârь > Croat.  $d\hat{a}r$  gift
- 3) \*zôlto > *zlâto* gold
- c) \*bộbьnъ > *bûbanj* drum
- d) \*mą́žьsko > muško male
- e) \*môldostь > *mlädost* youth
- f) \*sŷnove > *sïnovi* sons

The example of  $m\hat{i}$  shows the preservation of the long circumflex in monosyllabic words<sup>4</sup>. Additional examples from the same dialects are  $t\hat{i}$  thou,  $v\hat{i}$  you. As for Štokavian, one could cite aorist 2nd and 3rd person sg. like  $p\hat{i} < *p\hat{i}$  'drank' (from *piti* 'drink') for the same kind of development. However, these kinds of examples are not really reliable since it is quite certain that their actual Proto-Slavic form was  $*p\hat{i}tb^5$  and that the ending \*-tb was subsequently lost in Croatian (like in the 3rd sg. of the present tense).

The examples like  $d\hat{a}r$  and  $zl\hat{a}to$  are not problematic. The long circumflex is always preserved in such examples. The short falling accent in cases like the prefixed 2nd/3rd person aorist like  $n\ddot{a}p\check{t}$  (from  $n\dot{a}piti$  'get drunk') is either regular from the form \*nâpitь (which would behave like \*môldostь) or is analogical to  $p\ddot{o}p\check{t}$  (from  $p\dot{o}piti$  'drink up') that has an original short vowel<sup>6</sup>.

Like  $d\hat{a}r$  and  $zl\hat{a}to$ , the reflexes  $ml\ddot{a}d\bar{o}st$  and  $s\ddot{n}ovi$  are also not very problematic and here I refer to Kapović 2005a: 80–81. However, a few things need to be discussed. Basically, there is no difference between shortening in  $ml\ddot{a}d\bar{o}st$  and shortening in  $mu\ddot{s}ko$ . In both cases, the long circumflex is shortened in front of one and a half mora (one full vowel + one *yer*), the difference being only in their sequence. Thus, it seems logical to assume that the long circumflex was treated in the same way in both cases. The shortening like  $ml\ddot{a}d\bar{o}st$  also explains why prepositions, conjunctions and particles that obtain the absolute initial falling accent in the *enclinomena* forms of the mobile accentual paradigm (a. p. c)<sup>7</sup> like  $n\ddot{a}$  glavu < \*n $\hat{a}$  golvq 'on the head' almost always have ". Forms like  $n\ddot{i}$   $b\bar{o}g$  < \*n $\hat{i}$  bogs behave like \*m $\hat{o}$ ldosts and forms like  $n\ddot{a}$  oko < \*n $\hat{a}$  oko 'on the eye' behave like \*s $\hat{y}$ nove. However, there is one exception – dialectal forms like  $z\hat{a}$  me < \*z $\hat{a}$  mę 'for

<sup>&</sup>lt;sup>4</sup> Standard Croatian (i.e. Neo-Štokavian)  $m\hat{i}$  derives from the older form  $m\tilde{i}$ , which has a secondary accent by analogy to  $j\tilde{a}$  (cf. Kapović 2006: 55).

<sup>&</sup>lt;sup>5</sup> One would expect this secondary ending exactly in a. p. c, where the circumflex appears (cf. Дыбо 2000: 304–309).

 $<sup>^{6}</sup>$  The former is a possibility in the case one would refrain from reconstructing the ending \*-tb in these aorist forms.

<sup>&</sup>lt;sup>7</sup> Forms *a*, *b*, *c* are used for Proto-Slavic accentual paradigms and A, B, C for modern (Croatian) accentual paradigms. A colon (:) is used to indicate the length of modern accentual paradigms (B:, C:).

me',  $n\hat{a} te < *n\hat{a}$  tę 'on you' etc.<sup>8</sup> Here, the long falling accent is preserved like in the example *zlâto*.

There are some examples in which there seems to be no shortening of the *sinovi* type. A case in point would be possessive adjectives ending in *-ov* like *vûkov*, *vûkovo<sup>9</sup>* 'wolf's' or *mûžev*, *mûževo* 'husband's', where one would expect shortening. However, these are easily explained by analogy to the basic nouns *vûk*, *mûž*. Cf. the original shortened forms in dial. forms *kümovu* (fem. acc. sg.), *kümovi* (masc. nom. pl.) from *kûm – kûma* 'best man' in Donja Bebrina in Posavina (Old Štokavian)<sup>10</sup>. In the standard language, the accent is levelled *– kûmov*, *kûmovi* by analogy to *kûm*. See also a place name *Vůkovo Selo*'' in the Lower Sutla (*donjosutlanski*) Kajkavian/Čakavian dialect<sup>11</sup> and compare it with the usual possessive adjective *vûkov*. The original shortening is also seen in the surname *Vůkov* (cf. the usual adjective *vûkov/Vûkov*). Secondary analogical length of the same type is also seen in the name *Tijêlovo* 'Corpus Christi', where the orthography <Tijelovo> itself points to the length. This is analogical to the basic form *tijêlo* 'body' and the original shortened form can be seen in the alternative form *Tjêlovo*, which is also a very common pronunciation.

There are more problems concerning examples like \*b $\delta$ bbnb > bubanj and \*m $\delta$ žbsko > muško. Here we propose that the old long circumflex is regularly maintained in words like bubanj (i.e. words having two yers after the circumflex) and that it is shortened in all other cases – that is, in all cases that have one full vowel plus a yer, two full vowels etc. So the limit of the preservation of length is at two yers after the accent, i.e. one mora. Since every yer counts as half a mora, two yers count as just one mora, so examples like \*b $\delta$ bbnb are in mora terms the same as examples like \*z $\delta$ lto and that is why the length of the circumflex is preserved there. That is also why we posit the one mora law that says – Proto-Slavic long circumflex is preserved in Croatian only in front of one or less morae<sup>12</sup>.

There are a couple of problems with examples like \*b $\delta$ bbnb > bubanj. First of all, one would expect shortening in the oblique forms of the word. Forms like \*b $\delta$ bbna (gen. sg.) and \*b $\delta$ bbnu (dat. sg.) should yield \*bubnja, \*bubnja, the same as \*m $\delta$ žbsko yields *muško*. It is obvious that the attested forms *bubnja*, *bubnju* are analogical to the nom/acc. sg. *bubanj*. This kind of levelling is clearly attested in the word *lakat* 'elbow'. Here, in place of Proto-Slavic \* $\delta$ lkbtb we find in Croatian two variants – *lakat* and *lakat*, both widely attested in various dialects. How did this situation come about? What we expect from the old \* $\delta$ lkbtb, gen. sg. \* $\delta$ lkbti is Croatian \*lakat, gen. sg. \*läkta (with a transfer to *o*-stems). This alternation was then resolved by various dialects generalizing one form or the other<sup>13</sup>. Another clear case of shortening of the *muško* type is the acc. sg. *djecu* < \*dětьcq 'children' (cf. *dijéte* 'child'). The nom. sg. form *djeca* has the short syllable by analogy to the forms with the initial accent. As for the form *srce* 'heart', I shall not discuss

<sup>&</sup>lt;sup>8</sup> Cf. Kapović 2006: 43, 80–81.

<sup>&</sup>lt;sup>9</sup> The feminine form *vûkova* is analogical, in Proto-Slavic it was \*vukova, cf. Дыбо 1981: 126.

<sup>&</sup>lt;sup>10</sup> My data.

<sup>&</sup>lt;sup>11</sup> DGO 2007: 220.

<sup>&</sup>lt;sup>12</sup> Actually, by analogy to the *two morae law* (pretonic length is shortened in front of two or more morae), one would expect the name *one and a half mora law*, but this name was not chosen for obvious reasons.

<sup>&</sup>lt;sup>13</sup> Cf. also the case in Dubrovnik, where *lâkat* is 'elbow' and *lâkat* is 'ell' (ARj).

this problematic form here again. There are many indices that point to Proto-Slavic form \*sъrdьce and thus to the shortening of the old long circumflex but this kind of form is problematic in Proto-Slavic (one would expect \*sьrdьce). For more cf. Kapović 2005a: 80f and Kapović 2005b.

The main chunk of evidence for different results of levellings in the *läkat/låkat* type words comes from \*-ьпъ and \*-ъкъ adjectives. Here, in accentual paradigm *c* one can reconstruct Proto-Slavic forms like: \*gôlsьпъ – \*golsьnå – \*gôlsьпо 'loud' and \*têgъkъ – \*tēgъkå – \*têgъko 'heavy' (cf. Дыбо 1981: 94, 107, Дыбо 2000: 159, 171). Up till now, it has been mostly taken for granted that length is preserved in forms like Croat. *glâsan* – *glâsna* – *glâsno* and *têžak* – *têška* – *têško*. However, according to the one mora law we posited, one would not expect a complete maintenance of length but a complicated set of short/long alternations in various forms of these adjectives.

In Proto-Slavic, we find<sup>14</sup>:

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masc. – neut. – fem.
N. *gôlsьпь – *gôlsьпо – *golsnå
G. *gôlsьпа – *golsьný
D. *gôlsьnu – (*gôlsьně)
A. *gôlsьпь – *gôlsьno – *gôlsьno
L. *gôlsьně – (*golsьně)
I. (*gôlsьnomь) – *golsьnojó
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n. *gôlsьni – *golsьna – *gôlsьny
(g. *golsьnъ)
(d. *golsьnomъ – *golsьnа́mъ)
a. *gôlsьny – *golsьná – *gôlsьny
(l. *golsьněxъ – *golsьnа́хъ)
(i. *golsьný – *golsьnа́mi)
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In Croatian, one would expect the following paradigm after the phonetic shortening of the one mora law:

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masc. – neut. – fem.
N. *glâsan – *gläsno – *glāsna<sup>15</sup>
G. *gläsna – *glasnẽ
D. *gläsnu
A. *glâsan/gläsna – *gläsno – *gläsnu
L. *gläsně (*gläsnu)
I. *glasnõm
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n. \*gläsni – \*glāsnä – \*gläsne

<sup>&</sup>lt;sup>14</sup> The forms in the brackets are the ones that have not been reflected in Croatian. Instead of them, definite endings were taken.

<sup>&</sup>lt;sup>15</sup> For the preservation of length here, cf. *plátno* < \*poltьno (Kapović 2005a: 89–90).

a. \*gläsne – \*glāsnä – \*gläsne

The same type of pattern would be expected in \*têžak – \*těško – \*těškä etc. This kind of length alternation was hardly maintanable, so what occurred was that either short or long forms were generalized. In some cases, only the long form is attested (like in gladan <\*gôldьnъ 'hungry'), in others it is just the short form that is attested (like in *slästan* <\*sôlstъпъ 'delicious' or krepak < krepskъ 'brisk') and in some cases both forms are present (like in glasan/glasan < \*golsьпъ or tėžak/tėžak < \*tę́дъкъ)<sup>16</sup>. Generalizing the length meant maintenance of the a. p. C mobile accent, while generalizing the shortened forms meant a shift to a. p. A (glasan – glasna – glasno).

Here is the exact situation in \*-ьпъ adjectives <sup>17</sup>:

a) only short stem attested

*rëdan* orderly, *slästan*, *spräsna* with young (of sows), *ždrëbna* with young (of mares)<sup>18</sup>

b) short stem in some dialects, long in others

bitan/bîtan important, glasan/glasan loud, gnjusan/gnjusan dispicable, krepan/krijepan brisk, mästan/mästan greasy (A in Kajk.)<sup>19</sup>, märan/miran still (A in Kajk.), präšan/präšan dusty, sjäjan/sjajan glowy (A in Kajk.), skrban/skrban caring (A in Kajk.), snježan/sniježan snowy, srâman/sräman ashamed (A in Kajk.), sträšan/sträšan terrifying, svjëstan/svijêstan aware, vjëčan (Vuk viječan), zračan/zračan airy (A in Kajk.), *žučan/žučan* bitter<sup>20</sup>

c) only long stem attested

*bijêsan* rageous, *bûdan* awake, *glâdan*, *hlâdan* cold, *mrâčan* dark, *zlâtan* golden<sup>21</sup>

In the \*-ъкъ adjectives, the end results are a little bit different, looking at the numbers of various types of levellings (but there are far less examples here than in \*-ьпъ adjectives):

a) only short stem attested

bridak sharp, drzak daring, krepak, krhak fragile, sladak sweet

<sup>&</sup>lt;sup>16</sup> In some dialects, combined forms are attested, cf. in Sikerevci (Posavina, Old Štokavian – my data) tėžak – teška – teško.

<sup>&</sup>lt;sup>17</sup> For the reconstruction of Proto-Slavic accentual paradigms, cf. Дыбо 1981: 72-107, Дыбо 2000: 154-175. Also, some of the information relevant for the reconstruction of particular accentual types is provided briefly in the footnotes.

<sup>&</sup>lt;sup>18</sup> Cf. rêd – rêda order, slâst – slâsti relish (also \*sôldъкъ 'sweet'), prâse – präseta pig (also Siče in Posavina 3rd sg. se prasí farrows), ždrijêbe – ždrebeta foal (also Siče 3rd sg. se ždrebí foals).

<sup>&</sup>lt;sup>19</sup> In Kajkavian, generalization of the short variant occurs in cases in which it never occurs in Štokavian or Čakavian.

<sup>&</sup>lt;sup>20</sup> Cf.  $b\hat{t}t - b\hat{t}ti$  essence (also  $b\ddot{t}ti - b\hat{t}la$  be – was),  $gl\hat{a}s - gl\hat{a}sa$  voice,  $gnj\hat{u}s - gnj\hat{u}sa$  scoundrel, Slovene krepím (also \*krě́ръкъ 'brisk'), mast – masti fat (also Siče in Posavina 3rd sg. masti), Kajkavian/Čakavian  $m\hat{i}r - m\hat{i}ra$  peace (Štokavian míra is secondary),  $pr\hat{a}h - pr\hat{a}ha$  dust (also Siče 1st sg.  $praš\tilde{i}m$ ),  $sj\hat{a}j - sj\hat{a}ja$ glow, skŕb – skŕbi care, snijég – snijéga snow, srâm – srâma shame, stráh – stráha fear (but sträšiti scare), *svijêst – svijêsti* counsciousness, *vijêk – vijêka* age, *zrâk – zrâka* air, *žûč – žûči* bile. <sup>21</sup> Cf. *bijês – bijêsa* rage, Siče in Posavina 3rd sg. *budĩ* awakens, *glâd – glâdi* hunger, *hlâd – hlâda* shade,

mrák – mráka dark, zláto gold.

b) short stem in some dialects, long in others *mek(ak)/mek* soft, *pitak/pîtak* drinkable, *težak/težak*, *vitak/vîtak* slim<sup>22</sup>

Various kinds of levellings of shortness/length and various types of double forms in \*ьпъ and \*-ъкъ adjectives cannot be explained in any other way than by assuming the existence of the one mora law<sup>23</sup>. Thus these types of adjectives provide valuable additional data for the discussion of the rules of shortening of Proto-Slavic long circumflex in Croatian.

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<sup>&</sup>lt;sup>22</sup> Cf.  $p \ddot{t} i - p (la - p \ddot{o} p \bar{t} i) drink - drank - drunk' and <math>v \ddot{t} i - v (la - z \ddot{a} v \bar{t} i) flutter/wind - folded'$ . The rest of the \*-ъкъ adjectives are reconstructed as a. p. *c* by Дыбо.

<sup>&</sup>lt;sup>23</sup> Shortening also occurs in some \*-bnb and \*-bkb adjectives that have originally belonged to a. p. b, cf. for instance *greššan* 'sinful' and *kratak* 'short'. However, this process is not directly connected to the shortenings in the a. p. c and does not undermine our analysis presented here. More on this in Kapović *forthcoming*.